

ASSIGNMENT 2

Assignment Date	4october 2022
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Maximum Marks	2 Marks

QUESTION:

Build a python code, Assume you get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

Aim:

To get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature

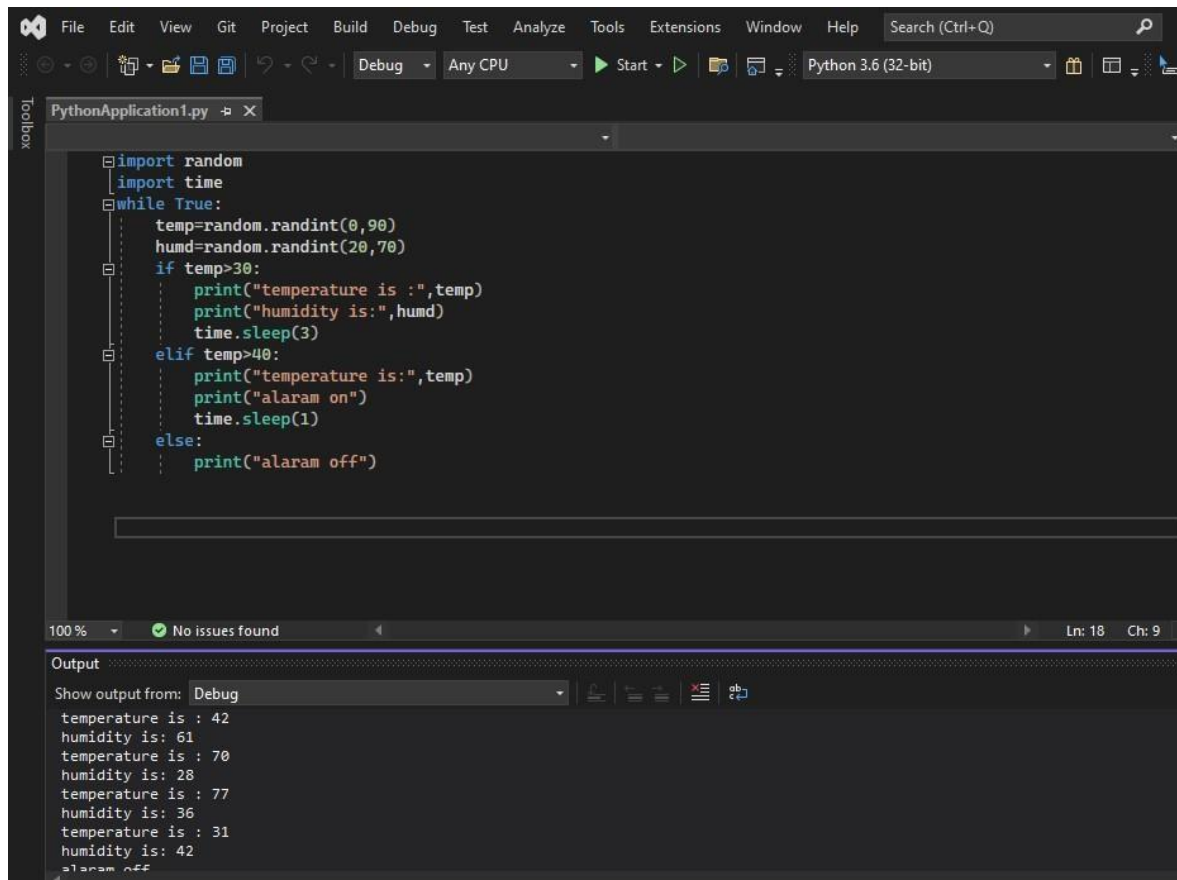
Code:

```
import random import time while
True:
temp=random.randint(0,90)
humd=random.randint(20,70) if
temp>30: print("temperature
is :",temp) print("humidity
is:",humd)
time.sleep(3) elif temp>40:
print("temperature is:",temp)
print("alaram on")
time.sleep(1) else:
print("alaram off")
```

output:

temperature is : 48
humidity is: 55
temperature is : 90
humidity is: 66
temperature is : 57
humidity is: 43
temperature is : 42
humidity is: 32
temperature is : 59
humidity is: 47
temperature is : 42
humidity is: 25 alaram off
temperature is : 80
humidity is: 35 alaram off
temperature is : 55
humidity is: 50
temperature is : 59
humidity is: 42 alaram off
temperature is : 77
humidity is: 48
temperature is : 42
humidity is: 63 alaram off
alaram off

program screen:



The image shows a screenshot of the Visual Studio Code (VS Code) editor interface. The top menu bar includes File, Edit, View, Git, Project, Build, Debug, Test, Analyze, Tools, Extensions, Window, and Help. Below the menu bar is a toolbar with icons for file operations and a dropdown menu showing 'Debug' and 'Any CPU'. The main editor window displays a Python script named 'PythonApplication1.py'. The script uses the 'random' and 'time' modules to generate random temperature and humidity values and prints them out. The output window at the bottom shows the results of the script's execution.

```
import random
import time
while True:
    temp=random.randint(0,90)
    humd=random.randint(20,70)
    if temp>30:
        print("temperature is :",temp)
        print("humidity is:",humd)
        time.sleep(3)
    elif temp>40:
        print("temperature is:",temp)
        print("alarm on")
        time.sleep(1)
    else:
        print("alarm off")
```

Output

Show output from: Debug

```
temperature is : 42
humidity is: 61
temperature is : 70
humidity is: 28
temperature is : 77
humidity is: 36
temperature is : 31
humidity is: 42
alarm off
```

Output screen:

```
C:\Users\Home\AppData\Local\Programs\Python\Python36-32\python.exe
alarm off
temperature is : 34
humidity is: 44
temperature is : 41
humidity is: 62
temperature is : 87
humidity is: 56
temperature is : 59
humidity is: 21
alarm off
alarm off
alarm off
temperature is : 33
humidity is: 52
temperature is : 47
humidity is: 32
alarm off
alarm off
alarm off
temperature is : 78
humidity is: 65
temperature is : 51
humidity is: 55
temperature is : 32
humidity is: 65
temperature is : 80
humidity is: 61
temperature is : 36
humidity is: 39
```

Result:

Thus temperature and humidity values are derived and alarm is detected at high temperature.